



## CERTIFICATE OF MAILING 37 C.F.R 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

2/3/05
Date

Kerry Morris

**PATENT** 

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Anthony F. Veneruso

Serial No.: 10/707,596

Filed: 12/23/03

For: Nanotube Electron Emission Thermal

**Energy Transfer Devices** 

Group Art Unit: 3672

Examiner:

Atty. Dkt. No.: 24.0843

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Assistant Commissioner is hereby authorized to deduct said fees from Deposit Account No. 19-0610.

Applicant respectfully requests that the listed documents be made of record in the present case.

Schlumberger Technology Corporation Sugar Land Product Center Intellectual Property Law & Contracts 200 Gillingham Lane Sugar Land, Texas 77478 (281) 285-4562 (281) 285-4232 (Fax)

Date: 3-Feb-05

Respectfully submitted,

Victor H. Segara Reg. No. 44,329

LIST OF INFORMATION PROVIDED  BY APPLICANT  The several sheets if necessary)				ATTY. DOCKET NO. 20.2914	SERIAL NO. 10/707,596		
				APPLICANT: Anthony F. Veneruso			
FEB 0	9 2005		FILING DATE: 12/23/03	GROUP 3672			
REFERENCE	DESCONAT	ION U.S. PATENT DOC	CUMENTS				
Examiner Initial		Document No.	Date	Pat	entee		
	AA	6,089,311	07/18/00	Edelson			
	AB	6,333,016	12/25/01	Resasco et al.			
· · · · · · · · · · · · · · · · · · ·	AC	6,440,761	08/27/02	Choi			
	AD	6,664,727	12/16/03	Nakamoto	· · · · · · · · · · · · · · · · · · ·		
	AE	6,605,894	08/12/03	Choi et al.			
	AF	6,064,137	05/16/00	Cox			
FOR	L EIGN PATE	NT DOCUMENTS					
		Document No.	Date	Country	Translation Yes No		
	AG						
	AH	Hishinuma, Y. et al., "Refrigeration by Combined Tunneling and Thermionic Emission in Vacuum: Use of Nanometer Scale Design," Applied Physics Letter 78(17); April 23, 2001; pp. 2572-2574.					
	AI	Shannon, Mark A. et al., "Integrated Mesoscopic Cooler Circuits (IMCCs)," 1999, Proceedings of ASME, Advanced Energy System Division, AES-Vol. 39, pp. 75-82.					
	AJ	Tavkhelidze, Avto et al., "Electron Tunneling Through Large Area Vacuum Gap – Preliminary Results," ICT2002 Conference Proceedings; pp. 1-4.					
	AK	Dean, Kenneth A. et al., "Carbon Nanotube Field Emission Electron Sources," New Diamond and Frontier Carbon Technology Vol. 12, No. 4, 2002, pp. 1.					
EXAMINER				DATE CONSIDERED			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant

communication to Applicant.

1. The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

<sup>2.</sup> This is not a representation that a search has been made.

FORMA PTO-	1449 (Modi	ified)	ATTY. DOCKET NO.	SERIAL NO.				
LIST OF INFORMATION PROVIDED BY APPLICANT				20.2914	10/707,596			
	(Use seve	ral sheets if necessary	7)					
				APPLICANT: Anthony F. Veneruso				
				FILING DATE:	GROUP			
				12/23/03	3672			
REFERENCE	DESIGNATI	ON U.S. PATENT DOCUM	IENTS					
Examiner		Dogument No	Doto					
Initial	BA	Document No.	Date	Pat	entee			
	2							
, , , , , , , , , , , , , , , , , , ,	BB							
	ВС							
	DC							
FOREIGN PATENT DOCUMENTS								
		Document No.	Date	Country	Translation Yes No			
	BD	Document No.	Date	Councry	105 100			
OTHI PAGES, ET	ER INFORMA	ATION PROVIDED (AUTHOR,	TITLE, DAT	E, PLACE OF PUBLICAT	CION, PERTINENT			
PAODO / July		Kim, J.M. et al., "Full Color, Large Area Field Emission Displays Using Carbon						
	BE -	Nanotube Emitters," EUR	•					
		Selby, John C. et al., "Fabrication of Mesoscopic, Flexible, High Pressure, Microchannel						
	BF	Heat Exchangers (MHEx)," Transactions of NAMRI/SME Vol. XXIX, 2001, pp. 469-						
		476.						
	BG	Muroyama, Masakazu et al., "Fabrication of Carbon Nanotube Triode Using Helicon Plasma CVD with Electroplated NiCo Cataylyst," Mat. Res. Soc. Symp. Proc. Vol 772,						
	Ъ							
		2003, pp. M.7.4.1 – M.7.4.6.						
•	ВН	Fisher, Timothy S., "Nanoscale Energy Conversion by Selective Electron Emission: A New Paradigm or Maxwell's Demon Revisited?" Energy and Nanotechnology: Strategy						
	~~**							
		for the Future, Baker Institute, Rice University, May 4, 2003; Purdue University, School of Mechanical Engineering, and Brick Nanotechnology Center, pp. 1-18.						
EXAMINER								

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

<sup>1.</sup> The attached cited information should not be construed as an admission that any of the above items

are prior art to the subject invention.

<sup>2.</sup> This is not a representation that a search has been made.

FORM PTO-1449 (Modified)  LIST OF INFORMATION PROVIDED  BY APPLICANT  (Use several sheets if necessary)				ATTY. DOCKET NO. 20.2914	SERIAL NO. 10/707,596		
				APPLICANT: Anthony F. Veneruso			
			FILING DATE: GROUP 12/23/03 3672				
REFERENCE	DESIGNAT	ION U.S. PATENT DOCUI	MENTS		•		
Examiner Initial		Document No.	Date	Patentee			
	CA						
	СВ						
	CC	-					
FOR	 ETGN PATE	 NT DOCUMENTS					
The second secon		Document No.	Date	Country	Translation Yes No		
	CD						
OTH PAGES, ET	Maduli Maddin	 ATION PROVIDED (AUTHOR	L , TITLE, DAT	L E; PLACE OF PUBLICA	TION, PERTINENT		
	CE	Wei, B.Q. et al., "Organiz 2002, pp. 495-496.	ed Assembly o	f Carbon Nanotubes," N	Jature, Vol. 416, April 4,		
	CF	Moores, K.A. et al., "Performance Assessment of Thermoelectric Coolers for Use in High Temperature Electronics Applications," Proceedings of the 18 <sup>th</sup> IEEE International Conference on Thermoelectrics (1999), pp. 31-34.					
	CG	Lee, Ok-Joo et al., "Fabrication of Field Emitter Arrays of Carbon Nanotubes Aligned on Patterned Sustrates Using Self-Assembly Monolayer," Mat. Res. Soc. Symp. Proc. Vol. 772, pp. M7.7.1 – M7.7.6.					
	СН	Spangenburg, K.R. et al., "Fundamentals of Electron Devices," McGraw-Hill, 1957, pp. 137-147 and 156-171.					
	CI	Rupesinghe, N.L. et al., "Field Emission Vacuum Power Switch Using Vertically Aligned Carbon Nanotubes, J. Vac. Sci. Technol. B 21-2(1), Jan./Feb. 2003, pp. 338-343.					
EXAMINER				DATE CONSIDERED			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

1. The attached cited information should not be construed as an admission that any of the above items

are prior art to the subject invention.

<sup>2.</sup> This is not a representation that a search has been made.